

P'AXITIAQΛOΓI'A

OR

A Tract of the Disease
R H A C H I T I S

Commonly called the
R I C K E T S.

Shewing the Signes, Cause, Symptoms,
and Prognosticks: Together with a most
accurate and ingenious Method
of CURE.

Written originally in Latin, (according to a new-
framed *Hypothesis*) by that most learned Philo-
sopher, and Famous Physician, Dr. *John May-*
ow, late Fellow of *All-Souls-Coll.* in the Aca-
demy of OXON.

And now (for the *Benefit* of his Coun-
try-men) faithfully rendred
into English.

By *W. S.*

To which is subjoyn'd a profitable Appendix, touch-
ing *WEIGHTS* and *MEASURES* us'd
in the Composition of Medicines and exhibitio-
n of Medicinal Doses.

O X F O R D,

Printed by L. L. for Th. Fickes, 1687

THE UNIVERSITY OF

OXFORD

A Tale of the District

R. H. A. C. H. I. T. A. S.

RISE AND FALL

Showing the History of the University of Oxford from the Foundation of the City to the Present Time



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**The most Vigilant, Industrious
and Expert**

MIDWIFE

M^{rs} MARY COOMES;

**the Translator Willeth all
Happinefs.**

Worthy Patrons,

IT was an inviolable Decree among the *Ægyptians*, that every Physician should have but one Disease for his Province; whereby is meant, that he was to employ his utmost Industry,
in

The Epistle

in order to improve his Faculty for the good of Mankind: And now adaystoo, it is so far from being thought an *Absurdity* so to do, that the best of Professors are not ashamed (but esteem it requisite and highly conducive) to make a particular Scrutiny into the knowledge of some one Distemper, eminently above others, according to the Inclination of their natural Genius.

Our learned Author is not herein to be excepted; for albeit he was a person of extensive parts, and was blest with

Dedictory.

with a more than ordinary Capacity ; yet did he signalize his Practice by a more particular Enquiry into the true Cause and Cure of the R I C K E T S, and after long Observation and Experience (that others might reap advantage from his Labours and Study,) published a Tract of this Disease : I having perused the same and well weighed what was written, I was heartily solicitous to communicate it in our Mother-Tongue, to Posterity, that it might become more general.

The Epistle

nerally useful, and diffusive to the Intelligence of such as have the Care of Children, and particularly to *Midwives* who ought to be of good Understanding, and to abound with great Notion relating to Medicines exhibited to Children, touching whose Infirmities it is a most usual thing to have recourse to them.

Now having (by the Divine Assistance) compleated this Undertaking, I did after mature Deliberation, think fit to make a Dedication of this small Treatise to
you

Dedicatory

you, having so great esteem
for you, that I blush not to
acquaint the World in short,
that in what you Profess,
appertaining either to Wo-
men or Children, (before,
or in, or after the Birth,) you
are so well Experienc'd,
Dextrous and truly Judici-
ous, that you may be justly
styled, the *Oxonian L U-
C I N A*, or *Compleat Mid-
wife*. What I have done as
to the Appendix of Weights
and Measures, I nowise
doubt but the same will
prove more delightful and
satisfactory, than what in the
Wri-

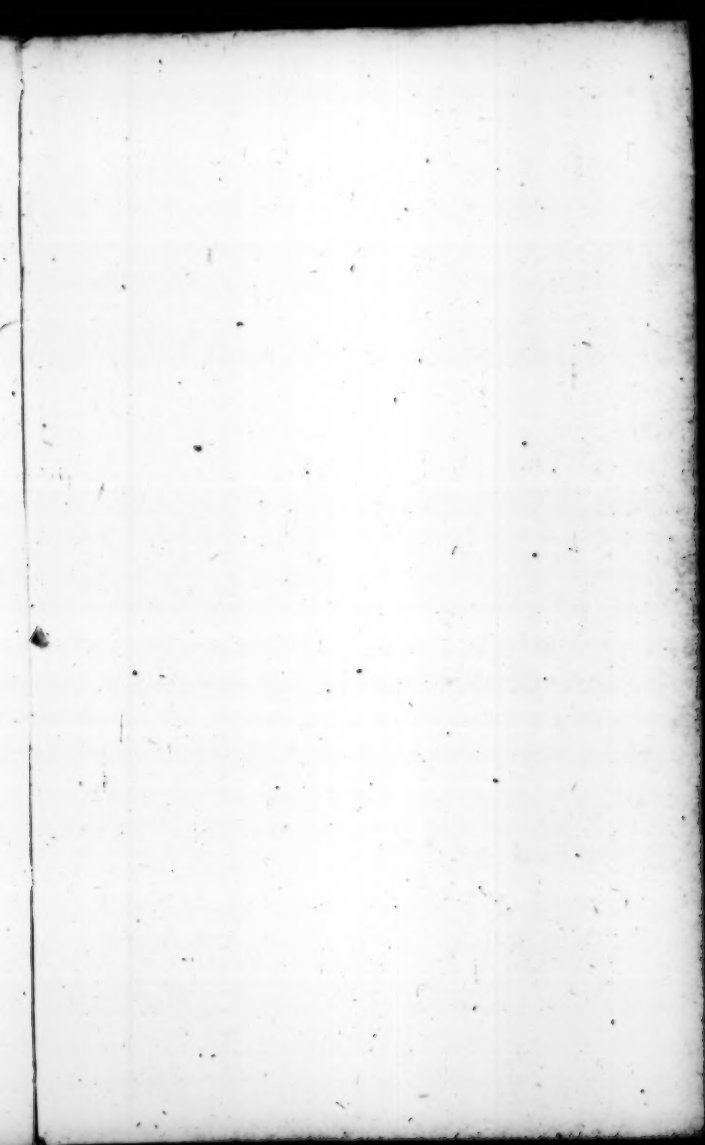
The Epistle &c.

Writings of any other English Author is yet extant. So committing the same to your Patronage, I subscribe myself

Yours

in all Sincerity

WILLIAM SURY.



1

TO THE
READER.

THose Things wch are truly Glor-
ious & highly Divine, do mani-
fest this one grand Proof of their Ex-
cellency, in that they continue perpe-
tually Immutable, not being subject
to Alteration. Now whereas this
is a very great Perfection, and to
enjoy a long and prosperous Life is
a superexcellent or surmounting and
supreme Good; justly then, and not
without cause do those Creatures,
which are in a mortal State aspire
thereat, and naturally desire to Be,
and to Live. But since they cannot
wholly and absolutely attain this;
yet,

yet thus much have they acquired, viz. to have, in some respect, a Perpetual Being; not in Number, but in Species, which abideth ever. For which reason, the Birth and Procreation of Living Creatures are continued by immutable Eternity, that what cannot be preserved in singular Substance, might at least persevere in Species. For it falls out on necessity, that every Individual, whereas it perceives it self to be mortal and dissoluble, wisheth to reserve something in its own Similitude, in its stead; in as much as in some degree it comforteth Languid and Declining Age, and by which as it were growing young and fresh again, it is in a manner perpetuated and made permanent. Hence ariseth that Lust or Desire of Begetting, which Nature hath imparted to all
Living

Living Creatures, that their Species might be forever preserved: Which being premised, we come next to consider, that as we want the absolute Perfection (in this humane State) of Immortality; So likewise we are deprived of the benefit of constant Vigour, Strength and Sanity, which not only Decaying Age gradually supervening, but a numerous Host of Diseases too, (which Sin hath intail'd upon the Race of Adam) sufficiently confirm. If therefore we respect & ponder the Advantage, Force and Faculties of all Arts, none will be found more excellent, more worthy, or more to be wished for by the sons of men, than that of Physick; which (as the learned Fernelius defines) Est Ars ad humani corporis Sanitatem tuendam, profligandosque morbos

bos, comparata. It is an Art ordained to preserve the Health of mans body, and to profligate Diseases. This great gift hath the Infinite Being, out of his boundless mercy bestowed on mankind, that, as he hath been pleased to necessitate a continuation of the Species, so also this Temporal Life might not be altogether burthensome; but by a reasonable Application of suitable Remedies, all Diseases and Dolours (from the Cradle to the Crutch) whether Internal or External, might be cured or at least alleviated.

Certainly then whatever is written on this Subject viz. Medicine, (presupposing it to be rationally deduced from the Fountains of Learning and Experience) it must on necessity prove acceptable; and that worthy old Adage, Bonū quò com-
mu.

munius eò melius, affords us a good and profitable Plea for Translation. For why should any thing that tends to a general Advantage, be hid from Vulgar Apprehension, Knowledge being the most delightful and commodious thing in nature. Tis undoubtedly great Pity that a Secret should be secured and fettered by the Padlock of a forraign Language, whereas the same being ushered into the World by a Mother-Tongue, might arrive to some wonderful Improvement, and diffuse it self to the utmost Limits of Christian Charity. That Author merits but small commendation, who respecting more his proper Praise, than the common Good of Man-kind, emits a Tract into the World, grudging his Works to be read by any others, then such as shall (being book-

book-learned themselves,) admire his Eloquence, and honour him with the Title of a Learned Man. Such a one (in my Opinion) is like to the Sun obnubilated, yielding most Light where there is least need of it. Tho a person of great Learning deems it a kind of Trespass on his Parts, so much to debase himself, as to commit his endeavours to publick View in an inferiour Language; yet, if some other is pleased to render the same easy to the Apprehension of a Multitude, which before was cōmodious but to few; it not only not derogates from the Authors Credit, but also may enrich the Understanding of many a one, whose aspiring Genius, otherwise perhaps might grow Languid, for want of a Recruit.

A Judicious Brain is not hereditary

tary to a Græcian or Latinist only :
Various Examples of men famous
in Physick, the Mathematicks, yea
most Arts and Sciences, who never
were grounded in any but their Mo-
ther-Tongue, may be produced.
Not being a Linguist, proves a man
to be a meer Ignoramus; no more
than the Language of the Beast,
infers a good Conclusion to think or
say, every one, that knows it, to be
a Cicero.

In truth, the Veneration I have
always had for Charitable Intenti-
ons, was the strongest Motive that
urged and inur'd me to this Enter-
prize. And we are bound to confess,
(whatever præjudicial Spirits dare
depose to the contrary) that Man-
kind can rarely be obliged with a
more acceptable piece of Service,
then that of reducing one Language
into another.

If

If therefore this noble Medicinal
Art infer so great Commodity and
Delectation; if likewise, (as I have
made it apparent) from Translaci-
on so great Improvement accrew to
most men, and (as I may boldly say)
to all Nations; here mayest thou,
Reader! divert thy Apprehension,
and improve thy Knowledge, not
with a mean, but remarkable and
late discovery; viz. An Investiga-
tion of a Distemper called the
RICKETS, incident to Babes
and Infants only, whose Tendernefs
and Immaturity of Age and Under-
standing, as they impede the Ex-
ploration and Disquisition of the
Diseases Origine, so likewise add
difficulty to to the Cure. The famous
Author (when living, much admired
for his profound Knowledg, and se-
cure Judgment) amongst his most
inge-

ingenious Philosophical Tracts, which largely recommend his Worth, hath pitched upon a Scrutiny of this Eisease in all its parts Diagnostick, Prognostick and Therapeutick, as well Pharmaceutical as Chirurgical. To be brief, this Tract may justly bear the Title of Gemma Medica, the Glory of whose Splendour the most Nebulous Aspect of frowning Zoilus, cannot diminish or obumbrate. His Hypothesis, touching the Crookedness of the Bones is undeniable, and not to be paralleled, by the bravest Æsculapius this refined Age can produce.

Accept hereof (kind Reader!) with as much Candour, as I have with Chearfulness Translated it, and in so doing, thou wilt highly recompence me for my Pains, and encourage me to Publish something else
shortly

Shortly, which will not be less worthy
thy perusal. In the mean time
Farewell, and enjoy these Fruits
of my Labour, which will tend both
to thy Pleasure and Profit.

Thine in all

honest Endeavours

W. S.

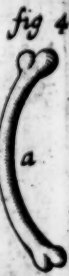
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ERRATA.

PAge 26, Line 16. for i. r. 2. p.
35. l. 17. r. grow not only. p. 35.
l. 22. for inflected, r. inflected. p. 47.
l. 15. for 10, r. 100. p. 64. l. 14. for affect.
r. effect. p. 75. l. 13. for half an Ounce,
r. half a Dram. p. 76. l. 6. for a Scruple,
r. half a Scruple, p. 90. l. 14. for
efer'd, r. refer'd.







A
Tract of the Disease
R H A C H I T I S,
commonly called the
R I C K E T S

The Proeme.

THe Renowned *GLISSON* is the onely man
(as far as I know) who
hath wrote any thing touching
the *Rickets*: which may seem to
be very strange, since a Disease
for the most part doth scarcely
A spread

spread so much as the ill habit of writing concerning it. And truly, so accurate a Treatise of this Disease lately set forth by Dr. *Glisson*, and the Authority of so great a man, might deter me from writing, did I not believe him to be such an one as would willingly pardon a lover of the Truth, tho now and then dissenting from him. Yet whereas I am making hast along with him to the same Goal, it must needs be that most an end I trace the same Footsteps. Wherefore by leave of so great a Person, I may lawfully repeat, (since it cannot be otherwise,) some things declared by him already.

CHAP. I.

Of the time when and Place where the Disease Rhachitis had its first Rise, and who are most subject thereto.

THIS Disease had its first rise in the Western parts of *England*, above Forty years ago: But afterwards (as it is the custome of Diseases and evils to spread themselves further) it infested the Cradles of Infants, (but more seldome in the Northern Countries,) throughout all *England*.

Therefore they are *Infants* who chiefly are sick of this disease; and they are more frequently

vexed therewith, from the sixth month after the Birth to the eighteenth, and from a year and a half to the end of two years and a half so that for the most part the time of its Invasion, are those two years which presently ensue the age of six months from the Birth,

CHAP. II.

Of the Signs or Symptoms of the Disease.

THE *Diagnosis* or knowledge of this Disease, (as of others,) doth depend upon the understanding of the Symptoms, which are these that follow.

1. The proportion of the parts
is

is irregular: *viz.* The *Head* bigger than it ought to be.

2. The *Face* over-fat,

3. The *Wit* too acute in respect of the Age.

4. The external *Members*, chiefly the musculous, lean and extenuated.

5. The *skin* loose and flagging.

6. The *Bones* for the most part bowed, and those about the *Joynts* standing out, and knotty.

7. The *Spine* or *Back-bone* is variously inflected.

8. The *Breast* is straight or narrow.

9. The *Extremities* of the *Ribs* knotty.

10. The *Abdomen* somewhat puffed up, and stretched out.

These things are outwardly ob-

served, but inwardly.

11. The *Liver* is perceived over-large; as also most of the *Parenchymaes*, or fleshy substances.

12. The *Ventricle* and *Intestines* rise into a greater Bulk, than in those who are sound.

13. The *Mesenterium* is affected with Glandules too great; if not with *Strumæ* or Waddles.

These are the Symptoms with in the *Abdomen*; within the breast,

14. The *Lungs* are discerned stult and tumid; and the same sometimes purulent, strumous, and very often growing fast to the *Pleura*.

15. The *Jugular Veins*, and *Carotid Arteries*, are sometimes found larger than their just proportion.

portion ; but the Brain is faulty only as to its Proportion and massy Bulk.

16. Lastly , to these is added an *Enervation* of almost all the Parts ; also a certain drowsiness and Impatience of Labour and Exercise : For, the little Children cannot play , except sitting , and with much ado can stand on their feet. And at last in the Progress of the Disease , the burthen of their Head, can hardly be sustained by their weak neck.

These are the so many and so great Symptoms of this Malady : In the next place we must search out what may be the fruitful (cause or mischief of so numerous an off-spring.

CHAP. III.

Of the Cause of the Disease. That it consisteth not in the naughtiness of the Blood; nor in the deprav'd constitution of the Parts.

F*irst*, We suppose the Cause of this Disease not to consist in the vitiated Influx of the blood, for so the whole mass of blood would be corrupted, which since it is indifferently conveyed to every part, the more impure blood would affect all of them more or less; which notwithstanding in this infirmity never happeneth: For the Head, as also the Bowels are well disposed only more than usually great;
yea.

yea, the very *Parenchymaes* which chiefly consist of affused blood, whereas they are found very much like to those of the Healthful, they in like manner argue the blood to be good and laudable. For it were absurd to assert I know not what *Elective attraction*, whereby the head and bowels well disposed, do attract all the good blood, but send away the bad into other parts: For this Attraction, (were there any) would be from all parts alike, since to every part there is a congruity and necessity of good blood, which are thought to bring to pass a motion of that kind.

Secondly, We affirm the Foundation of that Affect, not to consist in the depraved constitution
of

of the parts themselves; as if the parts molested with frigid and moist Intemperature; were unapt for receiving the Heart's influx: For, whence doth arise this so great an Humiditie and Coldness of some parts, in comparison of the rest, since all of them are irrigated with the like hot blood and spirits alike? For neither do I suppose the frigiditie innate to the parts, but to be preternaturally in them; neither truly must we believe the parts themselves to withstand their own nutrition. For those operate nothing in the Act of nutrition; but only receive the nutriment brought to them by toleration: So that I certainly believe, there is no other unaptness in the parts, whereby they be-

become not nourished, except Obstructions only, by means whereof they cannot take Aliment: Wherefore the cause of this Malady, cannot be in the constitution of the parts themselves; nor is it reasonable to judge Humidity the cause of the disease, but rather the Effect.

CHAP. IV.

That the Nerves as well as the Blood do help to nourish; and this disease doth peculiarly depend upon the defect of the Nervous Influx.

HOWever whereas the parts are really Cold. and tho' largely supplied with blood good
 A 6 enough

enough) are not nourished; We must altogether conclude that something else besides the blood alone, is requisite to heat and nutrition. Whatsoever this be there is a necessity that it be carried through some of the Vessels. The Arteries convey the blood, the Veins carry back that which is brought; and the Nerves only remain, which can convey the Liquor, or at least nutritious spirits.

But, that no man may doubt whether the Nerves carry any thing necessary to nutrition, I shall allege an Experiment known to every body; to wit, if a Nerve serving to any part be cut off from it, not only the sense of that part, but also all manner of nourishment, is utterly
lost

lost, insomuch as the same for the time to come shall become as it were withered.

But however, this nervous Liquor alone doth not perform, the whole duty of nutrition. For besides it, y^e blood diffus'd through the Arteries obtains not a small part as to nourishing. Forasmuch as the nervous juice being mingled with the blood doth cause a certain Effervescence or Heat, whereupon the matter meet for the nourishing of the parts, is precipitated; and through the defect of this nervous liquor's influx, tho' the blood in this aspect be pretty laudable, yet wanting its due ferment, it is neither available to excite due heat in the parts, nor to execute the office of Nutrition.

Chap.

CHAP. V.

The Definition, or Description of the Rhachitis, together with the Cause thereof: Wherein is shewed, that it proceeds not from the faultiness of the Brain; but from the obstruction of the spinal Marrow.

FROM what hath been said, we need not be affraid to affirm, that *The RHACHITIS* is a Disease, arising from the unequal distribution of the Nervous Liquor through the defect or superabundance whereof, some Parts defrauded of Nutrimēt are attenuated, other parts being over-cloyed [therewith,] grow too bulky. But

But this Vice of inequality consists not in the Influx of the Brain; for, from this fountain being vitiated, meet nutriment would accrew to no part at all: and truly, the Head and other parts, which partake of the nerves that have their original from the Brain, do enjoy Nutrimēt laudable enough, tho in too great abundance; yet whereas those Parts which have Nerves springing from the *Spinalis Medulla*, do become lean: it is certainly manifest, that altho in the brain, (as it were the publick store-house, shop, or work-house of the whole body,) an increase or store of vital spirits ample enough is elaborated: yet, the *Spinalis medulla*, as it were the Princely road or highway

way tending from that mart or
 emporium is altogether overcharg-
 ed and incumbred by thick and
 glutinous humours, whereby the
 Passage for the nervous nutri-
 ment is blocked up: Whence it
 cometh to pass, that the Nerves
 which descend from the *Spinal*
marrow, being destitute of that
 nutritious liquor, bring no aid
 at all to the languishing parts
 which they approach. Hence
 comes an *Atrophy*, and very great
 extenuation of those parts. So
 at last 'tis reasonable that we de-
 termine this to be the cause of
 this malady; and the rather,
 for that the reason of all the
 symptoms proper to this disease,
 may more clearly and easily be
 deriv'd from this Fountain, as frō
 what follows shall be manifest.

Chap.

CHAP. VI.

The Reason of the Symptoms, and first of the too great Augmentation of the Head.

IN this affect it falls out, that the head is increased to an unreasonable bigness, which indeed from our supposition must needs be : For the nutritious liquor of the brain is wont in a great measure to be discharged on the *Spinal Marrow* ; but that Passage now being stopped the whole is distributed to the nerves descended from the brain. Hereupon, whereas the head doth acquire too liberal an increase of nutriment from those nerves turgid

gid with nutritious juice, it must on necessity be advanced to an extraordinary bigness. From this cause also, the countenance (in respect of the Age) is over-big and the wit too acute : for, as the spirits being exhausted, do render us dull and languid ; in like-manner ; plenty thereof congested in the brain, maketh us wise and witty.

CHAP. VII.

*Of the swelling or puffing up of the
Abdomen.*

THe inward Parts of the Abdomen are wont for the most part to exceed their just proportion : there is indeed the like rea-

reason or cause for this, as there is for the symptoms of the head; For tis very certain, that these *Plexus* or foldings of so many nerves, serving to the lowermost belly, (as chiefly of the *Wandering Pair* and *Intercostal Nerves*,) are the Offspring of those which are descended from the Brain: That now it is no wonder, if the aforesaid *Viscera*, enjoying more plentiful nourishment brought unto them by the said nerves, do grow larger. For altho the *Intercostal Nerves* receive Branches from the *spinalis medulla*, such as can bring unto them no nutritious Liquor, yet, that too liberal influx of the brain doth abundantly recompense for this defect.

As for the *Liver*, and the rest of the *Parenchymaes*, which seem prin-

principally to consist of affused blood, the *nervous juice* perhaps is not so necessary for their nutrition: yet, whereas the Muscles of the *Abdomen* spread over them, have nerves from the *Spinalis medulla*, which certainly can bring no nutriment from that dried fountain, hence it comes to pass that the *Viscera* or Bowels inwardly surging, do press the Muscles aforesaid, and cause them to be stretched out as not growing with equal pace.

CHAP. VIII.

*Of strumous Glondules, or hard
Kernels.*

Furthermore it happens that the *Mesentery* is affected with great

great *Kernels*, and *Strumous Tumours*. That the cause of this symptome may the better be known, I shall briefly premit the Origine of *Glandules*. The nervous Liquor being mingled by due fermentation with the Blood, doth pass into a nutriti-ous carnal substance; but, if the Nerve being replete and turgid shall pour forth its liquor (which is very much like unto the white of an Eg,) into the interspaces of the flesh; the matter so effused doth not any more make flesh, through the defect of blood requisite hereto, but is congealed into a *Glandulous* body very much like unto it self; which from Observation is manifest: For being about to make an Experiment on a Dog, I pricked a
nerve

nerve, whereupon the dog was afterwards miserably wrested with Convulsions, and about three months after, I found a Glandulous concretion remarkable enough, where that wound or Puncture before hand was inflicted, which seems to arise from the nervous liquor flowing from the Puncture of the Nerve.

These things being premised; whereas so much nervous liquor is transfered from the repleted brain, through the *Wandering Pair* and *Intercostal* nerves, into the *Abdomen*, as cannot be changed into the substance of the *Viscera* that liquor is deposited into the interspaces of the Membranes, (whereof many occur,) and there procureth *strumæ* or *waddles* in great number.

Neither only in the *Abdomen* but wheresoever the nerves springing from the brain, (which grow turgid with that *Liquor*) do approach, there strumous Tumours are to be seen ; yet such as vanish away shortly after the Cure of the disease : For, the nervous *Liquor*, which, being effused in so great plenty from the Brain (through the nerves springing from thence) did abound to the Generation of the *Strumæ*, is now for the greatest part derived into the *Spinalis medulla* ; so that those *Strumæ*, defrauded of nutriment, in a short time are dried away.

CHAP. IX.

*Of the Crookedness of the Bones.
Dr. Glissons Opinion touching
the same, is set down.*

IN this Affect also the Bones are wont to be bowed more or less; especially those of the *Cubit* and *Tibia*: The joynts also for the most part, bend outwardly: the Extremities of the Ribs (where they are joyn'd with the Cartilages of the *Sternum*,) are knotty; The Bones of the joynts protuberant; likewise the whole *Spine* is variously inflected, partly outwards, partly inwards.

I do not conceive that this crookedness of the bones doth proceed

proceed from their *Flexibility*, ſith that Children afflicted with this malady, have rather greater and firmer bones than others, as ſhall more at large be declared : But ſince this incurvitie of the bones is ſo notable, we may be a little more prolix in the Diſquiſition thereof; and firſt I ſhall produce the Learned *Gliffons* opinion, and then my own.

“ We may compare the Bones
 “ (ſaith the famous man) to which
 “ this crookedneſs uſeth to hap-
 “ pen, to a Pillar; and not un-
 “ aptly, ſeeing that when they
 “ are erected, they reſemble a
 “ Pillar : And from thence we
 “ deduce a demonſtration that
 “ illuſtrates and makes the mat-
 “ ter very plain. Let the Pil-
 “ lar therefore conſiſt of three
 B “ ſtones

“ stones *a. b. c.* placed over one
 “ another Fig. 1. We suppose
 “ it such a one as is perpendicu-
 “ larly erected on every side, and
 “ of the same height: If therefore
 “ you shall fasten in a wedge on
 “ the right side between the
 “ stones *a. b.* through the line
 “ *f. d.* The head of the Pillar,
 “ namely the stone *a.* will of ne-
 “ cessity be bended towards *d.*
 “ and will make an Angle in *d.*
 “ and the height of the Pillar on
 “ the right side will be higher
 “ than on the left, as may be
 “ seen in Fig 1. In like manner,
 “ if you drive in another wedge
 “ through *g. e.* into the stones *b. c.*
 “ the Pillar will be yet more
 “ bow'd, and an Angle will be
 “ made in *e.* Now therefore the
 “ Pillar stands bent to the left
 hand

“ hand, as you see in the same
 “ Figure. But if you build a Pil-
 “ lar of more stones, and be-
 “ twixt every two, (as hath been
 “ said,) a wedge be interposed
 “ on one side, it will not resem-
 “ ble the Figure of a Pillar, but
 “ the proportion of a Bow, as is
 “ plainly perceived by the third
 “ Figure.

“ Now that we may accom-
 “ modate theie things to the pre-
 “ sent buisness; if the bones
 “ aforesaid be more plentifully
 “ nourished, and therefore do
 “ grow out more on that, than
 “ the opposite side; there is a
 “ necessity, that that must grow
 “ crooked: For here the over-
 “ plentiful nutrition of that side
 “ hath the same power, after
 “ the same manner, to bow the

“ Bones, as the interposed wedge
 “ hath to bow the Pillar ; save
 “ that the wedge is fastened only
 “ in some places of the side of the
 “ Pillar , and the over-plentiful
 “ nutrition of the side of the bone
 “ is commonly equally made, ac-
 “ cording to the whole length
 “ thereof , and because of this e-
 “ qual nutrition of the bone, the
 “ bowing thereof doth exactly
 “ represent part of a Circle with-
 “ out Angles.

CHAP. X.

*The Authors opinion. That the
 Bones in this Disease are suffici-
 ently nourished ; but not the mus-
 culous Parts , the extenuation
 where-*

whereof is the only Cause that the Bones are bowed; as is illustrated by Example. Of the inflexion of the Spine. Why the Bones of the Thigh and Shoulder are very seldom bowed.

ACCORDING to this Hypothesis; to wit, the over-plentiful Nutrition of one side, the Famous man indeed by an ingenious Comment doth demonstrate the crookedness of the Bones. But, (by the leave of so great a Person,) how doth that over-plentiful nutrition of one side appear to us, when as the blood wherewith the bones are nourished, is not less equally dispensed in this Affect, than it is in such as are healthful? And were there any such inequality,

the over-plentiful Aliment would be admitted in by the hinder-part of the *Tibia* or Shank-bone, as being less exposed to the Cold, and softer; and then the posterior and elongated side of the bowed shank would be convex, and the anterior concave: but it is quite contrary; for the shank in this Affect is wont to stand out forward.

Yea further, we may gather from the very Figure or shape of the bowed bones, that they grow equally on both sides: For the bones are after the manner of the Fourth Figure, which may represent the *Tibia*, or shank-bone; where the concave part, *a.* is just as long as the convex part, *b.* For otherwise, if the *Tibia* were formed as in the fifth figure

figure, the Thigh-bone, *b*, plac'd above it, could not be sustained without a manifest Obliquity of the body, as may be seen in the said Figure.

Let us then investigate some other cause of this crookedness; and that the matter may the more clearly appear, the following things are briefly to be premised.

I. We affirm that in this Disease, the Bones are not to be numbred among the affected parts, in respect of Nutrition; for they are not nourished, or do they grow less, than in those that are healthy; as we have found by observation: For we find that the blood alone is sufficient for their nutrition, and that there is no need of the nervous Juice, as

in the nourishing of the other parts. For since the bones are deemed to have no sense [or feeling] as in themselves; it is withall to be thought that they have little or no commerce with the Nerves.

2: We take it for granted, that in this Affect, the musculous and nervous parts do in nowise wax bigger, by reason of the defect of the nervous Liquor that is requisite for their nutrition.

These things being premised let, *a.* in the sixth Figure be the *Shank-bone*; *b.* the *muscles* affixt to it behind, and constituting the calf of the Leg. Whereas therefore the *Shank-bone* doth increase and grow longer; yet the same being held down (as it were

were with a string, (by the muscles which grow not with equa pace, insomuch that it cannot grow straight; there is a necessity, that that bone should stand bent like a Bow, being stretch'd out by the Fibres of the muscles which are shorter.

Let us illustrate this our *Hypothesis* by Example. If a Cord or String be fasten'd to a young growing Tree, at the top and towards the root; but in such manner as the same be not bent thereby, as in the seventh Figure is described; I no ways doubt but that Tree will become bow'd as it grows, after the manner of the eighth Figure. For this demonstration doth depend, upon this Mathematical assertion; viz.

If a Line [assigned to certain
B 5
bounds

bounds,] be stretched out longer within the same bounds or limits, it must on necessity of a straight line become a crooked one: Which is the very same that happens to the bones in this Affect.

And this may further be confirmed, in that bowed bones always respect[or bend towards] the muscle annexed to them on the concave part, as a Bow doth its string; as may be seen in a *shank* which beareth forward, and is Convex; but, in the hinder part that respects the Muscles it is concave: this same also doth take place in other bones, from a strong Argument, that the bones are not otherwise inflected by the Muscles, than a bow is by its string. From which a reason may be sought; why Women

men-Quacks are wont with success daily to rub the concave side of the bones, and not the convex: viz. The *Muscle* sited on the concave side of the bone is nourished and increaseth, the nutritious liquor being more plentifully called forth by this kind of Friction; that now it is no marvel, (the string being stretched out longer,) if the bone, extended and bowed by it, be withall relaxed, and become straighter. And from this cause, they that are cured of this disease, grow [for the most part] very tall in Stature; for the Bones grow not as in others; but also, whilst they become straight of crooked ones, they are much more elongated.

The *Spine* also is variously afflicted, partly inwards, and partly
ly

ly outwards, which ariseth from the various Position of the Muscles in divers parts of the *Spine*; The *Spine*, to wit, in the Superior part, (by the muscles outwardly affixt,) is bowed inwards, but in the inferiour part, (by the muscles *Psoas* inwardly annexed, and very strong,) it is bent outwards; as in the ninth Figure is shewed, wherein, *a. a.* is the *Spine*, *b.* the *Muscles* affixt outwardly, and bowing the *Spine* in the superior part inwards; and, *c.* the internal muscles of the Loynes called *Psoas*, bending the same outwards.

In like manner also I suppose this cause or reason of Crookedness takes place, not only in this Affect, but likewise in other cases: For if at any time it falls

falls out, in tender Age, that any muscle through defect of nutriment be extenuated; the bone to which the same is annexed, must needs be bowed thereby.

In the *Thighs*, and *Shoulders*, where the Bones are equally restrained by muscles fastned on every side, those (being posited in *æquilibrio*, or equal poize) are rarely bowed in any part: but since they cannot be stretched out in length, they must (as they do) on necessity grow out in bigness, and sometimes also become knotty.

CHAP. XI.

Why the Breast grows straight or narrow, and accuminated.

Moreover, it happens in this affect, that the Breast becomes straight and accuminated; and this Symptome in like manner may easily be illustrated by our *Hypothesis*: For *The Ribs cannot enlarge their Arches, unless the Intercostal muscles be also extended, as may be seen in the tenth Figure, where the Proportions of the Ribs, a. a. a. a. cannot be elongated, unless the intercostal muscles be likewise stretched out or enlarged.*

But we take it for granted that
the

the said muscles, (in as much as nerves are imparted to them from the Spinalis Medulla,) cannot be lengthened through defect of Aliment.

Ergo, neither can the Ribs, nor yet the Breast grow wider.

For, whereas the Ribs are nourished, yet being stayed by the said muscles, that they cannot be augmented as to longitude; they must needs (as it comes to pass) grow Knotty; But, neither is this Augment suitable to the provision or plenty of Aliment, wherefore the anterieur extremities of the Ribs are yet further lengthened to an edge, for there remains but this one way of increasing, as in the eleventh Figure is shewn, wherein let, *a, a*, be the Ribs, whose extremities, *b, b*, grow outwardly to an edge;
for

for they cannot be bowed inwards, since it would be much contrary to their natural Site.

Likewise the Muscles of the *Abdomen* conduce not a little to the narrowness of the Breast, which, as we said, being extenuated and tighted do draw the inferiour Ribs, to which they are fastned, downwards, and so straighten the Breast.

With the self same reason may be demonstrated the vices of the other bones; *to wit*, whereas the joynt-bones in the *Wrists* and *Ancles* cannot be bowed by reason of their brevity, they do bunch forth into knots or nodes.

But let what hath been said, touching the crookedness of the bones suffice.

Chap.

CHAP. XII.

Of the Asthma, Purpiness, or shortness of Breath, in this Affect.

IT is no wonder, if the *Lungs*, which have not room to dilate themselves, are stufft with clotted blood, (as it falls out) and puffed up, by reason of the aforesaid straightness of the breast: Hereupon, sometimes they become purulent, and for the most part grow fast to the *Pleura*; and and from this cause the *Asthma* and difficulty of breathing, do afflict the Patients.

CHAP. XIII.

From what Cause the Imbecillity or Feebleness of the Body doth arise.

AS to the very great feebleness of the body in this Affect, and awkerdness to any motion ; altho the extenuation of the Muscles doth in some measure make way for this Symptome, yet this alone seems not efficacious enough, since the impairing of strength is greater than according to the Extenuation of the Muscles : For, the sick cannot stand on their feet, neither (in the Progress of the disease) are they able to sustain the weight of their head. Wherefore

fore we must investigate some more remote cause of so great Imbecility, which indeed can be no other than the defect of the Animal Spirits inevitably ensuing the said obstruction of the Nerves: For, the Animal spirits are not requisite or necessary for nutrition alone, but also for motion.

And so at length we have, (as it were from a Fountain,) deduced the Symptoms of this disease, from the obstruction of the *Spinalis medulla*.

Chap.

CHAP. XIV.

Why elderly Persons, or those of riper years, are not molested with this Disease.

BUt here may arise a Querie : *How comes it to pass, that adult or Elderly Persons are never infested with this Malady; whereas they, as well as Infants, may suffer Obstructions of the Nerves, as it happens in the Palsie, and other the like distempers?* I answer; altho perhaps Children are chiefly obnoxious to this disease; yet those of riper years are sometimes troubled with this Affect under a different name. Nevertheless, because the aforesaid Symptoms for
the

the greatest part do never befall Elderly People; this doth not arise from the difference of the Disease, but of the Age. For, whereas the massy Bulk of the Head, the crookedness of the Bones, and some other Symptoms proceed from the enormous augmentation of the Parts, it is altogether impossible that adult persons, and such as are grown to the highest Pitch, (*to wit* such as have attained their full growth) should grow irregularly; and for that reason the Bulk of the Head is not augmented beyond measure in elderly persons sick of this disease, as it is in Children; because the head is at full growth, which the Laws of Nature it self deny to exceed. But altho the parts cannot be en-
or-

ormously augmented in those that are elderly ; yet the disease sufficiently discovers it self, by extenuating the same, which one thing in such [*viz.* adult Persons] it can only do.

CHAP. XV.

The Prognostick of this Disease comprehended in Seaven Aphorisms.

AS to the *Prognosis, Præscience,* or Prognostication of the Event of this Disease, of it self for the most part it is not mortal: yet sometimes the Symptoms waxing grievous, it degenerates into a *Phthisis, Consumption, Hætick-Feaver, Dropsie of the Lungs,* or *Ascites*; and so at length it proves

proves deadly to the Patient. But a more easy *Prognostick* may be instituted from the Rules following.

1. *If this Disease lay hold on the Patient before the Birth, or presently after ; it is [then] most dangerous , and for the most part Lethal.*

2. *By how much the sooner after the Birth this Affect invades [the Infant,] it is so much the more dangerous.*

3. *By how much the more the Symptoms of the Disease grow worse and worse ; viz. If there be to great a disproportion of the Parts, and very great extenuation ; so much the more difficult is the Cure.*

If

4. *If this Affect have the afore-said Diseases joyned with it, it scarcely ever terminates in Health.*

5. *Whosoever are not cured before the fifth year of their Age, they are sickly all their life time afterwards.*

6. *The Scab or Itch coming upon this Disease, confers much to the Cure thereof.*

7. *We need not doubt of their Health, in whom the Symptoms of the Disease are not increased, but rather diminished.*

CHAP. XVI.

The Method of Curing.

AFTER that we have made enquiry into the *Cause* and *Prognostick* of this Disease, it now remains that we come to its Precaution, or prevention, and cure.

Whereas then the cause of this Affect doth consist in the obstruction of the *spinalis medulla*, and the Imbecility of the nerves thence descended; the Principal Indications as well preservatory as curatory are, that the nerves be strengthened, and the Obstructions prevented, or taken away. to this end, *Medicaments Cathartick*, *Phlebotomy*, also *Digestives*,
C
D:

Diuretics, Diaphoretics, and Specifics may be made use of, whose Forms and manner of Using, we shall set down below.

As to what belongs to the Cure of the Disease, in the Institution thereof, we must begin with Purgation; which is so much the more convenient in this Affect, for that Phlegmatic Humors are for the most part congested in the lowest Belly in great abundance, and the inward parts of the *Abdomen* are frequently affected with strumous Tumours. Purgation may be ordained by Clysters, Emeticks, or Purging Lenitives.

CHAP. XVII.

*The use of Clysters, and some
Forms thereof.*

IF the Belly be Costive, or infested with Colical Torments, let Clysters be frequently made use of, which are not meerly solutive, but moreover also, let them be compounded of Alterants and Corroboratives. We will describe some forms thereof.

A Laxative. Anodyne, and Carminative Clyster.

Take of the Leaves of Mal-
lows Mj. the Flowers of Melilot,
Cammomil, Elder, of each Pj. An-

nis-seeds and *Fennel seeds* bruised of each; half a dram; Boyl them in a sufficient Quantity of new *Cow's-milk*. To 4. 5. or 6. Ounces of the Colature, add *Brown Sugar*, and *Syrup of Violets*, or *Roses*, of each one Ounce, mingle them, make a Clyster to be injected Luke-warm, a long while after Meales.

Another.

Take the Root of *Marsh mal-low* bruised, half an Ounce; the Leaves of *Mallows*, and *Pellitory of the Wall*, of each, half a handful; the Flowers of *Chammonil*, and *Elder*, of each, a small handful; *Carminative Seeds*, two drams: boyl them in a sufficient Quantity of *Posset-Ale*. To 5,
or

or 6, Ounces of the Colature, add of the Lenitive Electuary, or Diacassia, half an Ounce: Fresh Butter six Drams: mingle them: make a Clyster to be injected luke-warm.

Corroborant Clysters may be made after this manner.

A Corroborant Clyster.

Take of fresh Stone-horse dung one Ounce and an half; Flowers of Rosemary and Sage, of each, a small handfull; of Juniper berries, two Drams; Annis-seeds and Fennel-Seeds, of each, half a Dram: Digest them warm and close stopt, with a sufficient quantity of Posset Ale. In 4, 5, or 6, Ounces of the Colature, Dissolve of brown Sugar, one Ounce, Fresh butter six Drams.

mingle them ; make a Clyster :
 Moreover, six Drams of Calabrian Manna may be added, if you see cause.

Another.

Take 20, or 30, washed Hoglice : to which being bruised, pour on 4. or 5. Ounces of Posset-drink made with White-wine. In the Expression dissolve of Brown Sugar, one Ounce; *Venetian Turpentine* dissolv'd in the white of an Egg, one or two Drams. Mingle them, make a Clyster to be injected luke warm.

CHAP. XVIII.

The use of Emeticks or Vomitory Medicines, and some Forms thereof.

IF the Ventricle be loaded with vitious Humours, and they tend upward, let Emeticks be exhibited; nevertheless so as in the Prescription thereof Consideration must be had of the tender Age. Let the Vomitories consist rather of Salt of Vitriol, and Wine of Squils, than of stibiated medicines; for that it is not so safe to exhibit them to Infants, for fear of Convulsions; albeit in some Cases stibiated Medicines may also be made use of.

A Gentle Vomitory.

Take of the wine, or Oxymel of *Squils*, from half an Ounce to an Ounce; which being taken, half an hour after, let the Patient drink Posset-Ale in great abundance; then with a Feather, or Finger, thrust down the Throat, provoke Vomiting, and sometimes repeat it.

Another.

Take Oxymel of *Squils*, from half an Ounce to an Ounce; If Vomiting succeed not, half an hour after, give half a Scruple, or fifteen Grains of salt of Vitriol, in a draught of Posset-Ale.

If strength will permit, stronger
er

er Emeticks may be used : As this that follows.

A stronger Vomitory.

Take of the Infusion of *Crocus Metallorum* well depurated by settlement , from one dram to two , according to the Age , and strength of the Patient ; Oxymel of Squills , three drams, or half an ounce ; simple-water of Wall-nuts, or of the lesser Gentory, six drams : Mingle them, make a Vomitory.

CHAP. XIX.

Some Examples of Cathartics , or Purging Medicines.

A gentle Purgation (some daies after a Vomitory , or else

else if Vomition be not requisite) may be ordained, and repeated by Intervals.

A Gentle Purging Draught.

Take the Cream of Tartar, from ten Grains to fifteen; *Augustan Syrup*, or Syrup of *Succory* with *Rhubarb*, from six drams to one ounce; mingle them: Let it be taken very early in the morning, either by it self, or in a draught of Posset-Ale.

Another.

Take Calabrian Manna, from half an cunce to an ounce; Vitriolated Tartar from five Grains to ten; mingle them. Let the mixture be taken in the morning, in
Broth

Broth, or Posset - Ale.

A Purging Syrup.

R. Of the Roots of Polypody of the Oak, sharp-pointed dock, each six drams; Bark of the Roots of Elder, Dwarf-Elder, of each half an ounce; Roots of Osmond-royal, Male-fern, Succory, of each, half an ounce; The Herbs Agrimony, Liver-wort, Speed-well, Hart's-tongue, Ceterach, of each, half a handful: Boyl them in three Pints of Spring-water, to the Consumption of the third part. Let the Liquor be strained into a Matrace, whereunto put of the Leaves of *Senna*, two ounces, *Rhubarb*, one ounce, *Dodder of Time*, yellow *Sanders*, of each, two drams; of Annis-seeds

seeds, Fennel-seeds, of each one dram; Salt of Worm wood, one dram and a half: Infuse them warm, and close-stopt 12 hours, to the straining cleared by settlement, add an equal quantity of Sugar; and by the mere dissolution of the Sugar, or gentle boyling, make a Syrup according to Art. The Dose is from 1, to 3, spoon-fulls, either by it self, or in some appropriate Liqueur.

A Purging Electuary.

To the above-mentioned Purg. ing Infusio, add of *Cassia*, and *Tamarinds*, extracted with part of the same Infusion, *Calabrian Manna* strained or purified, and of the best Sugar, of each 1 ounce and a half; Evaporate them with a gentle

the Heat to the Consistence of an Electuary. The Dose is, the Quantity of a Wallnut, more or less according to its Operation.

Purgative Pils.

R. Of the Species of *Hiera-Picra simplex*, one dram; of the best Rhubarb powdered, half a dram; vitriolated Tartar, one scruple, *Gñ-Ammoniac* dissolved in Vinegar, fifteen Grains; With a sufficient quantity of *Elixir Proprietatis* of *Paracelsus*, let a Pilulary Mass be made, whereof let from half a scruple to a scruple be formed into Pills, and given at the hour of sleep.

A Bochet of Rhubarb, and yellow Sanders, made in proper distilled Waters, may be made use of. If

If the Patient be affected with *Worms*, or *Strumous Swellings*, or there be any suspicion of the *Venerical Evil*, the following Bolus may be exhibited between whiles.

A Purging Bolus.

Take *Mercurius dulcis*, from six Grains to ten; Conserve of the Flowers of Succory half a dram; mix them, make a Bolus. Let it be given very early in the morning, the Patient drinking immediately after it a convenient Dose of the Purging Syrup, or Infusion.

Another.

R. *Mercurius dulcis*, from six Gr. to ten; Rosin of Jalap or Scam-
mo-

mony, from two Grains to four; Chymical Oyl of Juniper berries, one drop. Make a Powder, which reduce into a Bolus with one dram of the Pulp of a coddled [or roasted] Apple, or with Conserve of Violets. Let the Patient take it early in the morning.

CHAP. XX.

Chirurgical Remedies.

AFTER gentle Purgation, if the Patient be of a Sanguine Temper, *Phlebotomy* or *Blood-letting* takes place. The Empiricks of our Nation, are wont to draw Blood in a small quantity

ty by scarifying the hollow part of the Ear, which they perform with a bluntish Knife, rather than with a sharp Pen-knife, and that they repeat twice or thrice, interposing the space or interval of about seven daies. Tho Practitioners do celebrate much this kind of Scarification, yet I cannot tell but that *Leeches* profit as much or more. Neither do I suppose that it is to be feared, that *Leeches* by their sucking would affect a greater Flux of Blood towards the Head. For what Blood soever (by reason of their suction, cometh near to the Part which they are applied to, the same is evacuated by the very suction: and as to the greater afflux of Blood, which is caused by the fulness of the Vessels, that also

also takes place in Phlebotomy.

Moreover, Issues bring very great help in this Affect, and especially a Fontinel excited between the first and second *Vertebrae* of the Neck; for so the same being applied to the Origine of the Disease will be of more efficacy. The use of Fonticles chiefly consists in that the same conduce to evacuate the superfluous Serositie of the Brain, and thereby to diminish its irregular magnitude, and also to dry up the too great humidity of the *Spinalis Medulla*, and consequently to corroborate the Nerves thence descended. A *Seton* may very well supply the place of a Fontinel.

As for Vesicatories or Blister-plaisters, it is not to be doubted, but

but that they will bring help, being applied to the *Vertebrae* of the Neck, and behind the Ears. But their vertue is soon exerted, and the frequent use of them is too troublesome and painful for Children.

Furthermore, Cupping-Glasses without Scarification applied according to the whole length of the *Spine*, seem to be of no small Moment to correct the Cold and moist temper of the *spinalis Medulla*, and to take away the torpor of the Nerves: Yea sometimes also I suppose they may be applied near the uppermost *Vertebrae* of the Neck, with Scarification.

CHAP. XXI.

Specific Alterants, [*or Remedies peculiar to this Disease, being such as alter and correct the Blood and Humours.*]

BESIDES Purging and Chirurgical Remedies, specific alterant Medicines may also be used; to which Diaphoretics and Diuretics are sometimes to be added, some Examples whereof we will set down.

Specific Remedies, which are found most effectual to cure this Malady, are either Simple, or Compound; and indeed among the Simple ones, these following are most approved. Spe-

Specific Remedies.

The Wood *Guaiacum*, and its
Bark.

Sassafras.

Wood of the *Lentick-tree*.

Rosemary wood.

The knotty parts [or tops]
of the *Fir-tree*.

Root of *Cbina*.

Sarsaparilla.

The three sorts of *Sanders*.

The Root of *Osmond-Royal*, or
rather the Spikes or little Fibres
of its Roots.

The Roots of *Male-Fern*, or
rather the Buds just bursting
forth out of the Earth.

Roots of	{	<i>Grass</i> .
		<i>Asparagus</i> .
		<i>Eringo</i> .
		<i>Succory</i> .
		<i>Bur-dock</i> .

The

The Capillary Herbs, and especially the *English black Maiden-hair*.

Spleen-wort.

Wall Rue or Tent-wort.

Harts-tongue.

Liver-wort.

The Bark of *Caper-roots*.

Male Speed-well.

Agrimony.

Brook-lime.

Water-Cresses.

The Leaves and Flow- ers of	{ <i>Sage.</i> <i>Rosemary.</i> <i>Archangel.</i> <i>Betony.</i> <i>Tamarisk.</i>

The preparation of *Steel*, as its *Salt* or *Vitriol*.

Tartar.

Castoreum.

The

The Flowers of Brimstone.

Earth-Worms.

Hog-lice prepared.

And the like.

*Whereof Compounds may be formed
after this manner.*

. A Decoction.

R. The Spikes of the Roots of
Osmond-Royal, or the Roots of
Male-Fern, or the Buds of its
Roots scarce yet burst out of the
Ground, one handful : Boyl the
same in a Pint of Milk, or Spring
water to the Consumption of
the third part. Let the Colature
be edulcorated with Sugar, and
taken twice or thrice in a day.

Another.

Take Of the Leaves of *Tee*. one
dram ; of the flowers of *sage* and
of

of *Betony*, of each half a dram. Whereupon, the same being put into a fit Vessel, pour of Water, which hath boyled a while, one pint: Infuse them close-stop'd, and luke-warm, for about an hour's space. Let the Colature be edulcorated with Sugar, and drank as the other.

A *Bochet* of the Roots of China Sarsaparilla, and Sassafras, boyled in *Spring water*, may be made use of.

A Decoction.

Take of the fibres or spikes of the Roots of Osmond-Royal, roots of Bur-dock, Grass-roots, and roots of Succory, of each one ounce; of the Herbs of Male-speedwel, Agrimony, Harts-tongue

tongue, Liver-wort, Maiden hair of each half a handful: Of the shavings of Harts-horne, and Ivory of each half an ounce; stoned Raisins one ounce. Boyl them in four pounds of Spring-water, to the consumption of the third part; add thereto of White-wine or Rhenish, half a pound, and presently strain it into a fit Vessel; to which let there be put of the leaves of Brook-lime, Water-creffes, and of the Tops of the Fir-tree, of each half a handful; of Juniper-berries, half an ounce; make an Infusion Warm and close stopt for about two hours. Keep the Colature in Glasses well closed, and edulcorate it at your pleasure: The Dose is, two or three Ounces at medical hours.

Me.

Medicated Ale.

Take of the Wood of the Lentisk-tree, Rosemary; Roots of Sarsaparilla, of Osmond-royal, or of Male-fern, of each, three ounces; Herbs, Agrimony, Maiden-hair, Speedwell, Harts-tongue; Sage, Betony, of each Mj. Tops of the Fir-tree, Tamarisk, of each Mj. boyl them in four Gallons of *Ale* to the Consumption of one; let the Colature Ferment or Work, and then repose it in a small Vessel, wherein hang a little bag, made of fine Linen and filled with the following things, *viz.* Hog-lice washed in white-wine, and lightly bruised No. 200. Juniper berries, 3ij. Nutmegs sliced No. 2 together

D

with,

with a piece of steel or Iron to sink the Bag.

If there be any suspicion of the *Scurvy*, you likewise may put in- to the Vessel, the leaves of Brook- lime, and Water-cresses, of each Mij. Let them remain there about a fortnight; and then let the Li- quor be taken for ordinary drink.

An Electuary.

Take Conserve of the roots of Succory, and of the flowers of Betony, of each one ounce; Con- serve of Rosemary-flowers, of the flowers of Tamarisk, and Rinds of Lemmons, of each half an ounce; preserved Myrobalanes N^o. 2; of the compound powder of Crabs-claws, one dram; Cream of Tartar, and flowers of Salt.
Ar

Armoniac, of each half a dram; of yellow Sanders, ℥j. with Syrup of Coral as much as is sufficient make an Electuary: Let the Patient take the quantity of a Nutmeg, in the morning, and at five a clock in the Afternoon, drinking thereupon a draught of some proper Liqueur.

A Powder,

Take of the *Powder* of prepar'd Hog-lice, two drams; of Nutmegs half an ounce; of the flowers of salt Armoniac, two scruples; make a *Powder*; the Dose is from 8 Gr. to 15, in some Apozeme, Broth or any other convenient Liqueur.

Pills.

This same Powder may be reduced into a-Pilulary Mass, with a sufficient quantity of *Capivius's* Balsom, to be formed into little Pills: The Dose is about a Scruple.

A Powder.

Take of the Roots of Osmond Royal, or of Male-fern, one dram and an half; of the Roots of Male Peony one dram; Wood of Sassafras, yellow Sanders, Seeds of Water-creffes, of each, one Scruple; candied Orange Peel, two drams; make a Powder. The Dose is from half a Scruple to a Scruple as above.

Lozen-

Lozenges or Tablets.

Of the prescribed *Powder* you may form *Lozenges* with *Seaven* times the weight of white *Sugar* dissolved in black cherry-water, and boyled to a tabulary consistence; each of them being in weight one dram: Let from half a dram, to a dram be taken twice in a day, drinking after it some appropriate *Liquor*.

A Distilled Water.

Take of the root of Cuckow pint, Male Peony, Osmond-royal, or Male-fern, of each four ounces. Leaves of Sage, Betony Rosemary, Water-creffes, Brooklime, Male-speedwell, Liver-wort,

tops of the Fir-tree, of each, three handfulls; of green Walnuts half a pound; washed Hog-lice three ounces; cleansed Earth-worms, one pound; of the best Castoreum one dram. To these being cut and bruised pour six pounds [*viz.* three quarts] of Posset-drink made with white-wine: distill them in a Common Still, let the whole Liquor be mingled: The Dose is from one ounce to two ounces twice in a day, after the taking of some solid Medicine.

CHAP. XXII.

Chymical Specifics; Also of Sweating and Bathing.

AMong the Remedies. which are approved in this Affect, that

that w^{ch} was invented by the honorable *Boyle* (called by the name of *Ens Veneris*) is exceeding famous. It is composed of *Salt Armoniac*, andedulcorated *Colcothar*, sublimed twice or thrice together. The Dose is from three Grains to six, in some convenient Liquor, at the hour of sleep: I suppose the efficacy of that Medicine chiefly ariseth from the *Salt Armoniac*, in as much as by reason of the very great tenuity of its parts, it is highly useful to take away the Obstructions that do procure this Malady: and it is likewise probable, that the *Flowers* of *Salt Armoniac* are sublimed together with the *Colcothar*, a certain narcotick Sulphur of the *Colcothar*, of an Earthy or Copper-like nature or Quality, doth ascend

cend together with the *Salt Armoniac* : And that kind of Sulphur seemeth not very meet for this Disease.

A certain *Artificial Salt* of an Armoniac quality, and of notable vertue, may be composed after this manner.

Take of the Volatile Salt of *Harts-Horne*, Blood, or Urine, a sufficient quantity ; upon which being put into a long Vial, pour rectified Spirit of Salt, or of Sulphur rectified *per campanam*, drop by drop, untill Ebullition can no longer be excited; this Salt being resolved, let it be filtered, and by a gentle heat reduced to the dryness of a Salt. The Dose is three or four Grains very early in the morning, or at the hour of sleep, in some appropriated Liquor. Fur-

Furthermore, those things which consist of Volatile Salt purely saltish, bring notable help in this Disease, in which rank are *Spirit of Blood*, of *Harts Horn*, of *Salt Armoniac*, and the like: But above all, those Spirits being impregnated with Amber, or *Castoreum*.

Elixir Proprietatis, with the *Tincture of Salt of Tartar*, or prepared after the vulgar manner, may also be made use of, for as much as it is not only a very good Digestive, but the same is likewise profitable to destroy Worms and to hinder the Corruption of Humours, and gently to subduce the Belly; the Dose is from six Grains to ten, in two Spoonfuls of a convenient Liquor.

If the *Lungs* are stuff (as they
are

are wont to be) with *Viscid Humours*, and the *Mesentery* be affected with *Strumous Glandules*, the *Balsome of Sulphur* may be exhibited ; whereof three or four Drops are to be taken in some convenient Liquor or Syrup.

In some Cases also the use of *Steel* is necessary , inasmuch as it is endued with a notable opening Quality, and doth not only help Concoction , but also confirms and strengthens the tone of the Bowels , yet it is not to be used without caution ; for in the *Cough, Purisie, Obstruction* of the *Lungs, Hætick-Feavers*, and other Diseases of that kind, we must altogether abstain from the use of *Steel*.

Unto the aforesaid Medicines *Diaphoretics*, or such as provoke Sweat

Sweat, may sometimes be added
 As the Decoction of *Guaiacum*,
 and others of that sort, which
 may be taken in Bed, and Sweat
 procured suitable to the strength
 of the Patient.

Hitherto also may be referr'd
 the use of a *natural Bath*, such as
 the *Bathonian Wells*, which are
 much commended to provoke
 Sweat, and to strengthen the
 Nerves in this affect. And truly I
 have often found by observation,
 that the use of the aforesaid Baths
 doth very much conduce to allay
 the swelling of the *Abdomen*, which
 in this Malady is wont to be very
 remarkable: Likewise *Artificial*
Baths made of *Cephalick Herbs*,
 and *Tartar* or *Nitre* boyl'd in
 Water, may be made use of.

The following *Fomentation* is
 much

much approv'd ; to wit, The sick Party being plac'd in a Vessel sufficiently large : Put Mault which has been a while infus'd in boyling Water, (as is usual in the Brewing of Beer, or Ale,) [or fresh Grains] round about him, luke-warm, and let the Patient, almost covered therewith, remain therein to Sweat.

CHAP. XXIII.

Of Remedies that correct the Symptoms.

MOREOVER, consideration must be had of the Symptoms that are consequent to this Disease ; of which the most frequent is

is the *Looseness* or Flux of the Belly; to the Cure whereof, the more gentle *Catharticks*, (such as the infusiō of *Rhubarb*, *Tamarinds*, and *Sanders*, or a *Bolus* compounded of them,) do principally conduce; But sometimes also we must come to *Astringents*, and *Opiates*, Purgation nevertheless and *Vomiting* being now and then premis'd; Forms whereof may be found here and there amongst Authors.

Furthermore, *Immoderate Sweat* is wont to afflict the Patient in this Affect; which, if it come upon the Fit of a Feaver, may be Critical, and ought not rashly to be restrained, but if the same flow inordinately and without cause, it is a sign that the Body is oppress'd with *Cacochymical Humours*

mours ; and in such case that kind of Sweat is to be amended by *Gentle Purgation* administred between whiles. But let Purging be chiefly instituted of *Rhubarb* : *Vomiting* also may bring help here; neither are *Aperitives*, and such as help Concoction to be omitted.

Laborious Dentition, or *painful Breeding of Teeth*, is familiar to this Disease, and often induceth a Feaver. In which case, make gentle Evacuation, chiefly with *Clysters* ; although sometimes Purgation, and Vomiting also, (which being gently provok'd, is much approv'd) may be used. If a Tooth be about to cut the Gum, Nurses are wont to rub the same with a piece of smooth *Coral* ; but the *Root of Marsh-mallows*, or of *Sharp-pointed*

ind by be. ing rb: re; uch ed. in- iar lu- te, ly e- ng o- e t o f f
ed Dock, may supply it's stead :
 And sometimes it will be worth
 your while to make way for the
Tooth ready to burst out by
Section. Likewise *Epispastic* or
 drawing *Plaisters* applied behind
 the Ears, bring ease. But if Do-
 lour and Watchfulness do urge,
Hypnoticks, such as *Syrup of Pop-*
pies, to the weight of one or two
 Drams, may be exhibited.

Besides internal Medicines and
 Chirurgical Remedies, External
 likewise are to be used; of which
 rank are all sorts of Exercise. If
 strength will bear, let walking
 be much used; or, at least, let
 the little Children play sitting,
 and be exercis'd by tossing them
 to and fro in the Nurses Arms,
 and rocking him in the Cradle :
 For, by Exercise, the Influx of
 the

the Blood and Animal Spirits, is promoted to the Musculous Parts, whereupon Heat is excited in the same ready to languish: The Mass of Blood too is stir'd up to a swifter Motion by the constriction of the Muscles; and the same is work'd up and down in the Lungs by reason of the more vehement Respiration caus'd by Exercise, and is impregnated with fermentative Particles; whereas, on the other side, the Blood by continual Rest grows grumous, thick, or as it were clotted, and so becomes more apt to cause Obstructions.

Frictions (or rubbing of the parts) which are perform'd with warm Woollen-Clothes, are of no small moment in the Cure of this Disease. The Parts to be rubb'd

rubb'd are the *Back-Bone*; (which doth principally suffer, as we have shewn,) and the *Musculous* Parts; but with this Caution, that you must forbear to rub on that side of the Bones that stands outward, but the concave parts of the Bones may be rubb'd more liberally, the Reason whereof we have assign'd before.

Hitherto also belongs the *Contraction* of the *Hypochondria*, whereby the Bowels are sometimes lifted up, and sometimes depressed, by thrusting of the *Fingers-ends* now and then under the *False-Ribs*: For by this means we prevent the Liver and other Bowels from their preternatural growing to the *Peritoneum*, or otherwise, which happens not seldome in this Affect, by reason of the
ten.

tenſion of the *Hypochondria*.

Moreover, *Ligatures* fitted to the Thigh and Leg upon the Knee, and to the Arms upon the Elbow avail much; but they muſt be looſe enough and ſoft, ſo as they may not hinder the incre- ment or thriving of the Part whereunto they are applied: For the Utility of *Ligatures* conſiſteth in this; that they help to revel the afflux of Blood from the Head, & to deduce it towards the extenuated Parts To this Title may be e- fer'd *Faſciatiō*, or the Swathing of certain parts; as likewise *button'd-Boots*, w^{ch} help much not only to ſtrengthen the Parts, but further to correct the Crookedneſs of the Bones, and bending of the Joynts. But in the uſe of theſe, care muſt be taken, that they preſs down a little the protuberant part of the

Bone, but hardly touch the hollow part.

To erect the Trunk of the Body, *Boddice* may be made of two Clothes sewed together, thick beset with Shingles, or Lath-like pieces of *Whale-bone*, which must be fitted to the Bodies of the Infants, so as the Spine be held upright, and the prominent Bones repressed.

Neither must we here omit the *Artificial Suspension* of the Body by the assistance of a certain pendulous Instrument made after such a manner with Swathing-bands, that it crosseth the Breast coming under the Arm-pits, and goeth about the Head, and under the Chin, and then receiveth the Hands with two Handles, whereby the weight of the Body is sustain-

sustained, partly by the Child's hands, partly by his head, and partly by his Arm-pits.

Now at last let us set down some of those things which are outwardly to be applied.

A *Fomentation* of any sort of *Wine*, as also of common *Aqua vita*, doth avail much to corroborate the Nervous parts; apply the same to the debilitated Parts, and especially to the *Spine*, and then anoint those parts with proper Oyl or Unguent, of w^{ch} hereafter. In lieu of *Wine*, the following *Decoction* may be made use of as, *A Fomentation*.

Take of the root of *Osmond-royal* and *Male-Fern*, each three ounces; of the Flowers of *Betony*, *Sage*, *Rosemary*, *Marjoram*, *Water-Cresses*, each, one handful;

ful; of the Flowers of Chamomil, Melilot, and Elder, each a small handful; Bay-berries, Juniper-berries, of each, half an ounce. Boyl them in a sufficient quantity of Spring-water, to two pound; put thereto of White-wine, or common *Aqua vitæ*, one pound. Keep the straining for use.

An Oyntment for the debilitated Parts.

Take of the Leaves of Elder, Bay, Marjoram, Sage, Rosemary, Betony, tops of Lavender, each two handfuls; Bay-berries, Juniper-berries, of each, one ounce: Put these being cut and bruised into a convenient Vessel, with three pound of May-butter, or
fresh

fresh Butter unsalted, and half a pint of *Aqua vitæ*; boyl them gently to the consumption of the *Aqua vitæ*: To the expression being yet hot, add of Oyl of Nutmegs made by expression, half an ounce; of *Peruvian* Balsom, one dram; mix them, make an Unguent: Instead of May-butter, Beef-marrow, or Deer's-suet, and Oyl of Earth-worms, or Fox-oil, of each one pound and a half may be substituted.

Apply Unguents pretty warm, before a clear fire, and rub them on with a hot hand until they be dry; that it may penetrate the more, mix a little of some proper Liquor with the same, in the time of using.

If the *Abdomen* be stretch'd out, and tumid, apply the following Oyntment. A

*A Liniment for the Swelling of
the Abdomen.*

Take of the Oyls of **Capers**,
Wormwood, and **Elder**, each
one ounce ; of *Ung. è succ. aperiti-*
vis, or the Unguent above pre-
scribed, one ounce and a half ; of
Gum-Ammoniac dissolv'd in **Vin-**
egar, half an ounce : Make a
Liniment ; wherewith a little
portion of the following **Liquor**
may be mingled in the time of
using it.

*A Decoction to be used with
the Liniment.*

Take of the Root of **White**
Briony, one ounce ; of the Leaves
of **Worm-wood**, **Centory**, **Sage**,
each,

each, one handful; Flowers of Elder, and Melilot, of each a small handful; of Bay-berries, Juniper-berries, each two drams: Boyl them in three pounds of Spring-water, to the wasting of half; add thereto of Rhenish-wine half a pint. Keep the straining for your use.

Whilst the Unguents are applied to the *Hypochondria*, let the Nurse handle the *Viscera* or Bowels, as is before directed. Emplaisters also can in this part bring help;

A Plaister for the Hypochondria.

Take of the compound Emplaster of Melilot, as much as will suffice; spread it on taw'd Leather, and apply it to the *Hypochondria*.

If there be a Tumour near the Region of the Liver ; add to one Ounce of the aforesaid Emplaster, of yellow Sanders powdered one dram ; of Oyl of Wormwood, and Wax as much as sufficeth to make an Emplaster.

Another.

Take the Juice of Brooklime, Water-creffes, Elder, and Worm-wood, of each one Ounce; Let the clarified Juices be reduced by a gentle heat, to the consistence of an Extract; to which add of *Gum-Ammoniac* dissolved in Vinegar, and boyled to a thicknes, two ounces; of Venice Turpentine one ounce; of Yellow Sanders powder'd 2 drams, of Oyl of Capers, and Wax as much

E

as

as is sufficient: make a Plaister to be applied as before.

If the Lungs be affected, Anoint the Breast with *Unguent. Pectorale*, or *Dialthæa*, or both mixt together, wherewith at the time of inunction, you must mix some oyl of Nutmegs made by Expression.

A Pectoral Unguent.

Take of Green Liquorice, four ounces; of fresh unsalted Butter one pound, Bruise them together in a stone Mortar, and macerate them in a Bath four hours, then strain them; repeat this three times with an equal quantity of fresh Liquorice, Let the Oynment clarified according to art, be kept for use: Wherewith in
the

the time of using, you may mix an equal quantity of *Ung. Pectorale*, with a little Oyl of Nutmegs made by expression.

Forasmuch as this Disease doth arise from the obstruction and debilitie of the *Spinalis Medulla*, corroborating Fomentations, and Unguents, such as are now already prescribed, may be there-to applied, wherewith *Balsome* of *Tolu* may be mixt in a small quantity ; such are *Emplastrum Nervinum*, *de Betonica*, as also that which follows.

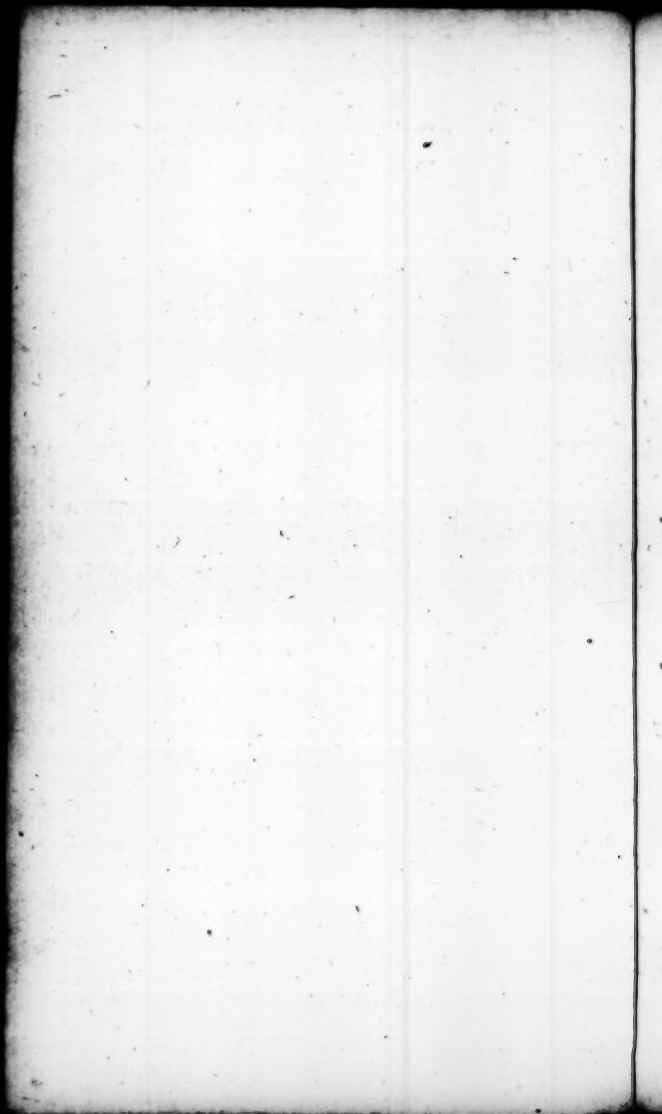
An Emplaster for the Spine.

Take of the first prescribed Oyntment, two ounces ; Gum Ammoniac dissolv'd in Vinegar, and Burgundy-Pitch, of each half an ounce ; Mastich, Frank-

incense, and Caranna, of each two drams; of Castoreum, half a dram; of prepar'd Earth-Worms, one dram and a half; of Salt Armoniac, two drams: Wax enough to make an Emplaster; spread a sufficient quantity of this upon raw'd-Leather, whose Form may be varied; for as the superiour or inferiour Parts are infirm, the Plaister is to be applied to the upper or lower part of the *Spine*, and sometimes according to the whole length of it: And so much for the Method of Curing the *RICKETS*.

FINIS.

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AN
APPENDIX
TOUCHING
WEIGHTS
AND
MEASURES

Us'd in the Composition of Medi-
cines, and in the Exhibition of
Medicinal Doses.

BY W.S.

Gradibus venit Incrementum.

OXFORD,

Printed by *Leon. Lichfield*, Printer
to the University, for *Tho. Fickus*
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AN
APPENDIX
TO
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Used in the Composition of Medi-
cines, and in the Exhibition of
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BY W. B.

Continued by J. Thompson.

OXFORD,

Printed by John Lichfield, Printer
to the University, for the Author.
DUBLIN. 1834.



*An Appendix touching Medi-
cal Weights and Measures.*

I. Of MEDICAL WEIGHTS.

THE Æstimation or Value
of all things is deduc'd
from Number, Weight,
or Measure. Now, as for Num-
ber, there is the same Reason
and Accompt universally dis-
pers'd throughout all the Regi-
ons of the World: But, as to
Weight or Measure, it is not so;
for there is a vast Variety, every

Government vindicating it's proper Weight, and it's proper Measure, which beareth the Name or Title of it's peculiar Country. And whereas, above all things, whatsoever is instituted for Medicinal use, it ought to be confin'd to sure and common Rules; certainly then *Weights should be establish'd certain and common to all men*, that by a General Law and Custom, there may be a General Consent and Agreement among all Nations; it being a Matter of no small moment, if we rightly consider the Scope we aim at in the use of them: For upon these oftentimes depends the Life, or Death, of the Patient.

Therefore, that a true Knowledge thereof may be had, we shall describe, First, What kind
of

of *Weights*, Physicians and Apothecaries do ordinarily use; Secondly, Their *Contents* or Ponderation, and their Marks, Notes or Characters; Thirdly, And Lastly, the whole Series shall be comprehended in a formal Scheme or Table adapted to the Memory: The like Method (as near as we can) shall be observed when we come to treat of *Measures*.

I. In the first place then, you must by the way take notice, that to effect the confirmation of a certain and common Rule as aforesaid, a *Minute*, or smallest Weight, (from which, as from a Spring-head, being augmented by continual Addition, the rest do accrew) must be ordained; even as *Geometry* hath it's *Punctum*, whence all Lines have their Rise
or

or Beginning ; and *Arithmetick* it's *Unity*, from which the large Family of Numbers derive their Pedigree.

The smallest Weight made use of in Physical Concerns, is termed a *Grain*, upon which the other Weights do rely, as their *Basis* ; and it is fit and expedient, that the same should be constant, allowable and firm : Wherefore it cannot be a Grain of Barley, Wheat, Vetch or Pulse, (as some foolishly imagine) by reason that no Nation produceth them of equal Weight ; but that Minute Money-weight which Goldsmiths call a *Grain*, (and in Latine may justly be termed *Momentum*, as well as *Granum*,) is rated and accompted the same in all Nations throughout the habitable Orb,

Orb, which the sacred Hunger of Gold, and furious Lust after Riches, doth keep unviolated and uncorrupted, and that too by Marks and Patterns transferr'd to all Places.

From this Minute Weight, *viz.* a Grain, do arise the greater, (that is to say) the *Scriptule* or *Scruple*, the *Drachm* or *Dram*, the *Ounce*, and the *Pound*. Even as many Grains of *Corn* constitute an *Ear*, and many *Ears* create a *Crop* for the painful Husband-man: So a more certain Addition of *Grain-weights* make up a *scruple*, certain *scruples* a *Dram*, and so forward, as I am about to set down. And no doubt for that reason, the word *Granum* is metaphorically attributed to the smallest Weight, from a discreet and

and gradual augmentation where-
of (as from a Fountain) all the
rest do flow:

2. Having thus lay'd the Foun-
dation of our Work, we (loving
method) come next to speak of
the *Scriptule* or *Scruple*, formerly
consisting of twenty four Grains,
which the word *πυγμα*, us'd by
the *Grecians* *pro scriptulo*, doth
plainly denote; and for that rea-
son *scriptules* or *Scruples* are
called by them *πυγμαλα*, because
a *Scruple* then did, and now
ought to consist of as many
Grains or Minute-weights, as
they have Characters or Letters
in their Alphabet: But now
adays the same retains but Twen-
ty Grains. So then 'tis not incredi-
ble that the ancient Weight hath
been diminished and adulteraed
through

through the Avarice of Druggists and others who buy their Commodities by the greatest Weight they can, and vend the same by as light ones as they dare.

Next in order followeth the *Drachm* or *Dram*, in which are contained *Three scruples*; and so consequently *Sixty Grains*.

To this we subjoyn the *Ounce Weight*, wherein are comprehended, *Eight Drams*, or *Twenty four Scruples* or *Four Hundred and Eighty Grains*,

And lastly, the *Physical Pound* (which is *Troy-weight*) retains only *Twelve Ounces*, and by this most aqueous Liquors are measured, as shall be shewn hereafter: But the *Druggists* and *Grocers Pound* (being *Averdupois-weight*) doth consist of *Sixteen Ounces*; and
is

is indeed generally made use of among the Apothecaries. Wherefore we contract the whole Series of our buisness in this manner.

A *Grain* is the least Weight usually prescrib'd in Physick, and is thus noted, *Gr.*

A *Scruple* hath *Twenty Grains*, and is mark'd thus, \mathfrak{z} .

A *Dram* weigheth *Three Scruples*, and hath this Character, \mathfrak{z} .

An *Ounce* containing *Eight Drams*, beareth this Signature, \mathfrak{z} .

A *Pound-Troy*, (of which we shall take notice in this place, as solely *de jure bono* appertaining to Medical Ponderation,) containeth *Twelve Ounces*, and is known by this mark, *lb.*

3. That I may not frustrate the Reader's expectation, it now remains that I present to his view
the

the following Table of Troy-weight, and withal declare the use of it.

The Table of *WEIGHTS*.

<i>The Characters</i>	℥	ʒ	℥	Gr.
1 Pound contains	12	96	288	5760
1 Ounce contains		8	24	480
1 Dram contains			3	60
1 Scruple contains				20

This Table needs no Explication; but, as for it's Use or Application, it shall be made manifest by Examples, for the sake of Tyroes and others who may stand in need thereof.

1. *Ex-*

1. *Example.*

AN Apothecary made up a Pilulary Mass weighing one Pound and a half; he was requested by a Physician living in the Country, to convey the same to him (form'd into Pills) in little Boxes, viz. a Dram in each Box. Now to know how many Boxes are required; or how many Drams the said Mass will produce. Seek the Denomination or Title 1 Pound (in words at length) towards the left hand, and this Character 3 on the top, and at the Angle of meeting you will find 96 the Number of drams contain'd in 1 Pound; to which if you add 48 the half-number for the Half-pound, the Aggregate will be 144 the Number sought for.

2. *Ex.*

2. *Example.*

A Physician prescribed a Specific Powder, whose Composition weighed ʒij , ʒiij , and ʒiſſ . Half a Dram at a time thereof to be taken by the Patient in a proper Vehicle: The *Query* is, how many Doses were contain'd in the whole Composition?

Looking into the fore-going Table in manner aforesaid, you will find the matter thus; having respect to the number given, if it transcend *Unity*.

$\left\{ \begin{array}{l} \text{ʒij.} \\ \text{ʒiij.} \\ \text{ʒiſſ.} \end{array} \right\}$	contain	$\left\{ \begin{array}{l} 32 \\ 6 \\ 1 \end{array} \right\}$	Doses or Half- Drams.
---	---------	--	-----------------------------

In all 39 Doses.

II. *Of*

II. Of *M E A S U R E S*.

HAVING discussed all ambiguity as touching *Medical Ponderation*, we shall with the more ease and brevity treat of *Measures*; so much dependance have they on the former, that without the knowledge of those, no certain Rule can be given for these.

I. Whereas great and uncertain is the variety of them, the Use of many is, not without cause, utterly abolished; and instead of those Concave Bodies, wherewith the Ancients were wont to proportionate both Dry and Liquid Substances, the modern

dern Physitians every where u-
 surp Concave Measures, whose
 Contents are correspondent to
 Troy-weights, some whereof are
 capacious of one Pound-weight,
 some of two Pounds, others of
 three or more Pounds; yea, o-
 thers containing smaller Weights
to wit, Ounces, or Ounce, and
 half-Ounce, to measure aqueous
 or oleous Liquids withal, refer-
 ring Arid things to Weight: If
 lesser Proportion be exacted, a
 Guess may sometimes serve turn;
 where it is ineffectual or dange-
 rous to confide to Conjectures,
 the same is precisely perform'd by
 small Weights, all things being
 duly ballanc'd.

2. As in the Description of
Weights, we began with the *Grain*,
 or smallest; so treating of *Mea-*
sures

asures for Liquids, (those for *Arids* being for the most part exploded) we deem it expedient to begin with the greatest, *viz.* the *Wine Gallon*; and for brevity's sake shall set down it's Division, Subdivisions, and Characters, as followeth.

The Greater Measures.

A Gallon	} Measure contains	{ 2 Pottles 2 Quarts 2 Pints	} or { 8 Pounds, 4 Pounds, 2 Pounds.
A Pottle			
A Quart			

The Smaller Measures.

The Pint	} measure contains	{ 1 Pound-Troy, or 12 6 Ounces. (Ounces. 3 Ounces. 1 Ounce and $\frac{1}{2}$. 1 Ounce. $\frac{1}{2}$ Ounce.
The $\frac{1}{2}$ Pint		
The $\frac{1}{4}$ Pint		
The ha. $\frac{1}{4}$ P.		
The Ounce		
The $\frac{1}{2}$ Ounce		

The

The said *Measures* are usually exprest by the Marks or Characters of the *Weights* to which they are applicable; as by the subsequent Table (which likewise, as that of *Weights* preceding is sufficiently explanatory in itself,) doth manifestly appear.

3. And so we come gradually to the *Mensuration-Table* it self; and shall propose one *Question*, the *Resolution* whereof will give light enough, as touching the *Use* of it.

A Ta-


A Table of MEASURES for Liquids.

	lb.	℥	ʒ
1 Gallon	8	96	192
1 Pottle	4	48	96
1 Quart	2	24	48
1 Pitt	1	12	24
$\frac{1}{2}$ Pint	0	6	12
$\frac{1}{4}$ Pint	0	3	6
$\frac{1}{8}$ Quarter	0	1 $\frac{1}{2}$	3
1 Ounce	0	1	2
$\frac{1}{2}$ Ounce	0	$\frac{1}{2}$	1

A pretious Liquor drawn off
per Alembicum to the quantity of
 3 Quarts, 1 Pint, 1 half. Pint, 1
 quarter-Pint, was repos'd *uncia-*
tim or Ounce by Ounce for com-
 mon Sale; now it is demanded,
 how many Ounce. Bottles were
 re-

requisite for it's reposi^{ti}on? *Answer* 93. For

2 Quarts or 1	} is answer- able to	3	} In all 93 Ounces.
1 Quart (Pottle		48	
1 Pint		24	
$\frac{1}{2}$ Pint		12	
$\frac{1}{4}$ Pint		06	
		03	

 Note, that Oyl is lighter than *Wine* by a ninth part; and *Honey* is weightier than *Wine* by the half: So that whatever Measure containeth of *VVine* 9 Ounces, receiveth of Oyl but 8 Ounces, and is capable to hold 13 Ounces and an half of *Honey*.

POSTSCRIPT.

IT may be expected, that I should add an Interpretation of the *Grecian*, *Roman*, and *Arabian* Weights and Measures, for the better understanding of some ancient Authors; but (they being in these days altogether obsolete,) I shall at present supersede.

F I N I S.

F

*The most difficult Terms of Art, belonging
to the afore-going Treatise and Appen-
dix, Alphabetically Explained.*

A Bdomen. *The lowest Cavity of the
Body called the Paunch or Belly, se-
vered within, from the Breast by the Mid-
riff, and bounden above by the Heart-pit,
and beneath by the Share-bones.*

Aliment. Nourishment.

*Alterants or Alteratives. Medicines
that change or alter the Discrasy or evil
Disposition of the Blood.*

Anodyne. That easeth Pains.

*Aperients or Aperitives. Medicines
that open, or take away Obstructions.*

Aphorisms: Short general Rules.

*Arteries. Membranous Spermatical Ves-
sels, which by Pulsation convey away the
Blood from the Heart to the Veins.*

*Ascites: A kind of Dropsie wherein the
Abdomen is swelled like a Bottle, from a
watris humor contained within the Cavity
thereof. Dr. Willis.*

*Asthma: It is a difficult & pursie Breath-
ing, with a great shaking of the Breast, and
for the most part without any Feaver. D.W.*

Astringents. Binding Medicines. A-

Atrophy : *A Consumption of the Flesh, when the same wasteth away, and the Food taken in doth not nourish.*

Bolus : *So much of an Electuary or other solid Medicine as the Patient may well take at one time in his Month.*

Cacochymical humours. i. e. *Evil or vicious humours.*

Carminative : *That expelleth Wind.*

Carotid Arteries : *Two Arteries in the Neck that go up to the Brain.*

Cartilage : *It is a similar Part; Cold, dry and void of sense, flexible; and not so hard as a Bone; called also a Gristle or Tendrel, as of the Ear or Nose.*

Chirurgical : *Belonging to Chirurgery.*

Colature : *It is taken for any Liquor strained, or separated from its Feculency, Sediment, or more gross Ingredients.*

Concoction : *Digestion.*

Concretion : *A gathering together or congealing of any substance.*

Corroborant or Corroborative : *Strengthening, or confirming.*

Costive : *Bound in Body.*

Cubit : *The two Bones of the Arm; to wit, The lesser above called Radius,*

reaching from the Shoulder to the Elbow;
and larger below called *Ulna*, reaching from
the Elbow to the Wrist.

Dentition : *Breeding of Teeth.*

Diaphoreticks : *Medicines that dissolve
and send forth Humours by Transpiration or
breathing through the Pores ; that is to say,
such as cause or procure Sweat.*

Digestives : *Medicines that concoct,
digest, or prepare the Humours to be correct-
ed or evacuated.*

Diureticks : *Medicines that provoke
Urine ; or cause to piss often.*

Dolour : *Grief, Pain or Ache.*

Dose : *A quantity of Physick to be giv-
en at one time.*

Edulcorated : *Sweetned, or made sweet
with Sugar, Honey, and the like.*

Emeticks : *Medicines causing a Vomit ;
called also Vomitories.*

Empiricks : *Quacks, Post-doctors, or
Mountebanks.*

Enervation : *A weakning or enfeebling.*

Epispastic : *Attractive, or Drawing.*

Fasciation : *Swathing.*

Fonticles or Fontinels : *Issues.*

Friktion : *A rubbing of the Parts.*

Glan-

Glandules : *Kernels or soft spongy Substances in the Body appointed to receive excrementitious humours.*

Hypnoticks : *Medicines that procure or conciliate Sleep.*

Hypochondria : *That part of the Belly and Sides under the shorts Ribs.*

Hypothesis : *The Cause, Ground, or Supposition, whereon we rely in the framing of an Argument.*

Intercostal Muscels : *Muscles placed between the Ribs, in that form as in Fig. 10.*

Intercostal Nerves : *The ninth or last Pair of Nerves so called, because it marches down by the Roots of the Ribs, and betwixt every Rib it receives a Branch from the Spinal Marrow.*

Jugular Veins : *Certain Veins in the Neck so called.*

Laxative : *Loosening.*

Liniment : *A soft Ointment.*

Ligature : *Bandage, or Swathing of any Part.* **Medicament :** *A Medicine.*

Mesenterium : *The Mesentery. It is a membranous Part, situate in the middle of the lower Belly, serving not only for conveying some Vessels to the Intestines, and*

others from them ; but also it ties most of the Guts together so artificially, that for all their manifold Windings they are not entangled and confounded. The Veins it contains are called the Mesaraick Veins.

Muscle : Is a dissimilar Part, [to wit, whose Portions are neither of the same Substance, nor the same Denomination, for it is compos'd of Flesh, Nervous Fibres, and a Tendon ;] and the proper Instrument of Voluntary Motion.

Nerve : It is a simple Spermatical part, called a Sinew.

Nervous Liquor : It is the Nutritious Juice of the Nerves.

Nutrimment or Nutrition: Nourishment.

Opiates : Medicines wherein Opium is an Ingredient ; and is often taken for any Medicine that procureth Sleep.

Parenchyma : A fleshy Substance, and chiefly of the Liver, Spleen, and Lungs.

Peritonæum : The inmost membranous Coat of the Belly.

Phlebotomy : Breathing of a Vein, or Blood-letting.

Phthisis or Phthisick : It is properly, a withering away of the whole Body, arising from

from an Ulcer, or other ill Formation of the Lungs. Dr. Willis.

Pleura: A thin Membrane that investeth the Ribs on both sides.

Prognostick A fore knowledge, or understanding of the future State of a Disease, founded on the due consideration of the present State.

Psoas: Two great Muscles sited in the inward part of the Loyns.

Purulent: Matter, or foul Corruption.

Respiration: An Action whereby the Air is received in, and driven forth of the Lungs, called Breathing.

Scarification: A cutting or Lancing.

Serosity: Moisture.

Specifics: Remedies proper to any one peculiar Disease.

Spine: The Back-bone.

Spinalis Medulla: The Pith of the Back-bone, called the Spinal Marrow.

Sternum: The Breast-bone.

Strumæ, and Strumous Swellings: Hard Kernels, or Swellings.

Tibia: The Bone of the Leg, called the Shank or Shin-bone.

Veneral-Evil: The French-Pox, or Modish Disease.

Ven-

Ventricle: *The Stomach.*

Vertebræ of the Neck, *The 7 Bones of the Neck, behind the lowermost whereof is joyned to the uppermost Vertebra of the Back, which are in number 12.*

Vesicatories: *Medicines that raise Blisters.*

Viscera: *The Bowels, to wit, The Heart, Liver and Lungs.*

Ung. è Succ. aperitivis: *An Ointment of Opening Juices.*

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